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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,403	03/08/2001	Bruce Benfield	STL9-2000-0072US1/1858P	5418

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EXAMINER
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MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/734,403

Applicant(s)

BENFIELD ET AL.

Examiner

Aravind K. Moorthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This is in response to the appeal brief filed on 6 September 2006.
2. Claims 1-28 are pending in the application.
3. Claims 1-28 have been rejected.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

In view of the appeal brief filed on 6 September 2006, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**5. Claims 1, 8, 15, 21-23 and 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al U.S. Patent No. 7,093,137 B1.**

As to claim 1, Sato et al discloses a method for integrating encryption functionality into a database system, the method comprising:

(a) providing data encryption in a database system [column 6, lines 31-37]; and

(b) utilizing the function within structured query language statements [column 8, lines 15-24].

As to claim 8, Sato et al discloses a system for integrating encryption functionality into a database system, the system comprising:

at least one computer processing device [column 6, lines 31-37]; and

a database management system installed on the at least one computer processing device, the database management system supporting utilization of at least two functions for data encryption [column 17, lines 7-26],

wherein the at east two functions for data encryption are invoked within structure query language statements [column 17, lines 7-26].

As to claim 15, Sato et al discloses a computer readable medium containing program instructions for integrating encryption functionality into a database system, the program instructions comprising:

- (a) providing data encryption in a database system [column 6, lines 31-37]; and
- (b) utilizing the function within structured query language statements [column 8, lines 15-24].

As to claim 21, Sato et al discloses a method for integrating encryption functionality into a database system, the method comprising:

defining a function to support encryption of data in a database system, the encryption of data being based on a user-specified password, the function having a function name [column 26, lines 4-14]; and

utilizing the function within a structured query language statement to control access to the data in the database system including encrypting the data within the database system with the user-specified password [column 26, lines 4-14],

wherein the structured query language statement includes the function name and the user-specified password [column 26, lines 4-14].

As to claims 22 and 26, Sato et al discloses that the function is a user-defined function or a built-in function within the database system [column 8, lines 15-24].

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As to claims 23 and 27, Sato et al discloses defining a function to support encryption comprises:

defining an encrypt function to encrypt data when inserted or updated in the database system [column 9, lines 19-24]; and

defining a decrypt function to decrypt data when selected from the database system [column 17 line 57 to column 18 line 4].

As to claim 25, Sato et al discloses a computer readable medium containing program instructions for integrating encryption functionality into a database system, the program instructions comprising:

defining a function to support encryption of data in a database system, the encryption of data being based on a user-specified password, the function having a function name [column 26, lines 4-14]; and

utilizing the function within a structured query language statement to control access to the data in the database system including encrypting the data within the database system with the user-specified password [column 26, lines 4-14],

wherein the structured query language statement includes the function name and the user-specified password [column 26, lines 4-14].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claims 2-4, 9-11, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al U.S. Patent No. 7,093,137 B1 as applied to claims 1, 8 and 15 above, and further in view of Ford et al U.S. Patent No. 5,963,947.**

As to claims 2, 9 and 16, Sato et al does not teach that that step (a) further comprises (a1) adding at least two functions as user defined functions in the database system.

Ford et al teaches adding new functions as user defined functions in a database system [column 8, lines 40-48].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato et al so that it would have been possible to add at least two functions as user defined functions in the database system.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato et al by the teaching of Ford et al because it provides a mechanism that allows developers and users to add new functionality to a database system dynamically, thereby giving users access to new features immediately [column 1, lines 24-28].

As to claims 3, 10 and 17, Sato et al teaches that the user-defined functions further comprise a first function to encrypt user-specified data when inserted or updated in the database system [column 9, lines 19-24].

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As to claims 4 and 11, Sato et al teaches that the user-defined functions further comprise a second function to decrypt the user-specified data when selected from the database system [column 17 line 57 to column 18 line 4].

As to claims 5, 12 and 18, Sato et al teaches that the first function further encrypts the user-specified data with a user-specified password [column 26, lines 4-14].

**7. Claims 6, 7, 13, 14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al U.S. Patent No. 7,093,137 B1 and Ford et al U.S. Patent No. 5,963,947 as applied to claims 1, 8, 15, 21 and 25 above, and further in view of Grawrock U.S. Patent No. 6,360,322 B1.**

As to claims 6, 7, 13, 14, 19 and 20, the Sato-Ford combination does not teach that the first function further encrypts with a password hint. Sato et al does not teach that the user-defined functions further comprise a third function to get the password hint.

Grawrock teaches a first function that encrypts the user-specified data with a user-specified password [column 4, lines 25-57]. Grawrock teaches a function that encrypts with a password hint. Grawrock teaches another function to get the password hint [column 8, lines 21-51].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Sato-Ford combination so that user-specified data would have been encrypted with a user-specified password. One of the functions would have been a password hint. There would have been a separate function to get the password hint.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Sato-Ford combination by the teaching of Grawrock



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because it allows only bona fide users to retrieve passwords. It also adds extra security because only the user is going to know the answer to the hint questions [column 1 line 59 to column 2 line 15].

**8. Claims 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al U.S. Patent No. 7,093,137 B1 and Ford et al U.S. Patent No. 5,963,947 as applied to claims 21 and 25 above, and further in view of Grawrock U.S. Patent No. 6,360,322 B1.**

As to claims 24 and 28, Sato et al does not teach that the first function further encrypts with a password hint. Sato et al does not teach that the user-defined functions further comprise a third function to get the password hint.

Grawrock teaches a first function that encrypts the user-specified data with a user-specified password [column 4, lines 25-57]. Grawrock teaches a function that encrypts with a password hint. Grawrock teaches another function to get the password hint [column 8, lines 21-51].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato et al so that user-specified data would have been encrypted with a user-specified password. One of the functions would have been a password hint. There would have been a separate function to get the password hint.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sato et al by the teaching of Grawrock because it allows only bona fide users to retrieve passwords. It also adds extra security because only the user is going to know the answer to the hint questions [column 1 line 59 to column 2 line 15].

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*Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793.

The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aravind K Moorthy   
December 8, 2006

  
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